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SINCE FILE	TOTAL
ENTRY	SESSION
100.39	100.60

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
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NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
saved answer sets no longer valid
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NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
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NEWS 27 Oct 21 EVENTLINE has been reloaded
NEWS 28 Oct 24 BEILSTEIN adds new search fields
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NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT
NEWS 32 Nov 25 More calculated properties added to REGISTRY
NEWS 33 Dec 02 TIBKAT will be removed from STN
NEWS 34 Dec 04 CSA files on STN
NEWS 35 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36 Dec 17 TOXCENTER enhanced with additional content
NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 38 Dec 30 ISMEC no longer available
NEWS 39 Jan 13 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40 Jan 21 NUTRACEUT offering one free connect hour in February 2003
NEWS 41 Jan 21 PHARMAML offering one free connect hour in February 2003
NEWS 42 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
ENERGY, INSPEC
NEWS 43 Feb 13 CANCERLIT is no longer being updated
NEWS 44 Feb 24 METADEX enhancements
NEWS 45 Feb 24 PCTGEN now available on STN

NEWS 46 Feb 24 TEMA now available on STN
 NEWS 47 Feb 26 NTIS now allows simultaneous left and right truncation
 NEWS 48 Feb 26 PCTFULL now contains images
 NEWS 49 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results

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 AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 12:14:57 ON 13 MAR 2003

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FILE COVERS 1907 - 13 Mar 2003 VOL 138 ISS 11

FILE LAST UPDATED: 12 Mar 2003 (20030312/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s imide catalyst

18616 IMIDE

8616 IMIDES

```

    22941 IMIDE
        (IMIDE OR IMIDES)
    616517 CATALYST
    608182 CATALYSTS
    788215 CATALYST
        (CATALYST OR CATALYSTS)
L1      93 IMIDE CATALYST
        (IMIDE(W)CATALYST)

=> s 11 and oxidation
    375923 OXIDATION
    4542 OXIDATIONS
    377406 OXIDATION
        (OXIDATION OR OXIDATIONS)
    647015 OXIDN
    8166 OXIDNS
    648672 OXIDN
        (OXIDN OR OXIDNS)
    771368 OXIDATION
        (OXIDATION OR OXIDN)
L2      30 L1 AND OXIDATION

=> s 12 and solvent
    569143 SOLVENT
    281328 SOLVENTS
    718828 SOLVENT
        (SOLVENT OR SOLVENTS)
L3      6 L2 AND SOLVENT

=> s 13 and crystallization
    94980 CRYSTALLIZATION
    113 CRYSTALLIZATIONS
    95035 CRYSTALLIZATION
        (CRYSTALLIZATION OR CRYSTALLIZATIONS)
    199979 CRYSTN
    2201 CRYSTNS
    201239 CRYSTN
        (CRYSTN OR CRYSTNS)
    223562 CRYSTALLIZATION
        (CRYSTALLIZATION OR CRYSTN)
L4      1 L3 AND CRYSTALLIZATION

=> d ibib abs hitstr
```

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:802407 CAPLUS
 DOCUMENT NUMBER: 137:310697
 TITLE: Separation of aromatic or aliphatic carboxylic acids
 from imide catalysts
 INVENTOR(S): Watanabe, Hitoshi; Kuvana, Akihiro; Shimamura, Masami
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002308820	A2	20021023	JP 2001-106386	20010404
PRIORITY APPLN. INFO.:			JP 2001-106386	20010404

OTHER SOURCE(S): MARPAT 137:310697
 AB The sepn. process comprises crystn. of reaction products prepd. by using imide catalysts having structure Q (X = O, OH, acyloxy) from solvents, while imides are distributed in the solvent phase. P-xylene was oxidized with O in the presence of N-hydroxyphthalimide, cobalt acetate, and manganese acetate in AcOH at 150.degree. under 4 MPa to give a reaction mixt., which was cooled to 80.degree. under 300 mmHg, resulting in terephthalic acid partition ratio 99.7%.

```
=> s imide separation
    18616 IMIDE
    8616 IMIDES
    22941 IMIDE
        (IMIDE OR IMIDES)
    161726 SEPARATION
    6365 SEPARATIONS
    167130 SEPARATION
        (SEPARATION OR SEPARATIONS)
    483881 SEPN
    31950 SEPNS
    500226 SEPN
        (SEPN OR SEPNS)
    547639 SEPARATION
        (SEPARATION OR SEPN)
L5      11 IMIDE SEPARATION
        (IMIDE (W) SEPARATION)
```

```
=> s l5 and oxidation
    375923 OXIDATION
    4542 OXIDATIONS
    377406 OXIDATION
        (OXIDATION OR OXIDATIONS)
    647015 OXIDN
    8166 OXIDNS
    648672 OXIDN
        (OXIDN OR OXIDNS)
    771368 OXIDATION
        (OXIDATION OR OXIDN)
L6      4 L5 AND OXIDATION
```

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=> d ibib abs hitstr 1-4
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L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2001:747675 CAPLUS
 DOCUMENT NUMBER: 135:303777
 TITLE: Method of separating imide compound from oxidation reaction mixtures
 INVENTOR(S): Miura, Hiroyuki; Watanabe, Hitoshi; Kuwana, Akihiro; Shimamura, Mami; Hirai, Naruhisa
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 101 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074487	A1	20011011	WO 2001-JP2844	20010330
WO 2001074487	C2	20020718		
V: CN, ID, KR, SG, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2001286765	A2	20011016	JP 2000-102795	20000404
JP 2001289122	A2	20011016	JP 2000-102796	20000404
EP 1273343	A1	20030108	EP 2001-917773	20010330
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2002169331	A1	20021114	US 2001-980588	20011204
PRIORITY APPLN. INFO.: JP 2000-102795 A 20000404 JP 2000-102796 A 20000404 WO 2001-JP2844 W 20010330				
OTHER SOURCE(S): CASREACT 135:303777; MARPAT 135:303777				



AB A reaction mixt. obtained by reacting a substrate in the presence of an imide compd. having an imide unit represented by the formula (I; X represents oxygen, hydroxy, or acyloxy) can be efficiently sepd. through crystn. and/or extn. with a specific solvent into the imide compd. and a reaction product. Furthermore, a mixt. comprising the imide compd. and a metal catalyst can be efficiently sepd. through crystn., adsorption, and/or extn. into the imide compd. and the metal catalyst. This process separates N-hydroxyimide and/or metal compds. which are used as oxidn. catalysts, and imide which is a deactivated form of N-hydroxyimide, from oxidn. reaction products. Deactivated

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1964:425178 CAPLUS
 DOCUMENT NUMBER: 61:25178
 ORIGINAL REFERENCE NO.: 61:4275a-b
 TITLE: Separation of benzoic acid from crude toluene oxidation products containing aliphatic and alicyclic hydrocarbons and products of their oxidation
 INVENTOR(S): Ciborowski, Stanislaw
 PATENT ASSIGNEE(S): Instytut Chemii Ogolnej
 SOURCE: 2 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 46843		19630420	PL	19610508
GB 961062			GB	

AB From crude oxidn. product 90-95% of unreacted toluene is distd. under atm. pressure and the rest distd. with superheated steam at approx. 160 degrees. The distillate is collected in a vessel containing some amt. of boiling water. In this vessel BzOH is absorbed and forms the bottom layer, whereas toluene, BzH, monocarboxylic aliphatic acids, aldehydes, and ketones are distd. and collected in another vessel. After crystn. and drying the BzOH obtained is >95% pure.

L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS (Continued)
 imide is regenerated to N-hydroxyimide by reaction with hydroxylamine or hydrolysis to dicarboxylic acid and then reaction with hydroxylamine and recycled to oxidn. reactions. Thus, a mixt. of 3 kg p-tert-butyltoluene, 66.03 g N-hydroxyphthalimide, and 2.5 kg AcOH was heated at 80 degrees. and 20 kgf/cm2 under oxygen atm. for 2.5 h to give a reaction mixt. contg. 50.8 g p-tert-butylbenzyl alc., 206.8 g p-tert-butylbenzaldehyde, 1,121.9 g p-tert-butylbenzoic acid, 12.2 g N-hydroxyphthalimide, 22.0 g phthalimide, and 8.5 g phthalic anhydride. The reaction mixt. was treated with 2,600 mL H2O, thoroughly stirred for 1 h, and left to stand for 1 h. The water and org. layer were sepd. and analyzed by gas chromatog. and liq. chromatog. P-tert-butylbenzyl alc., tert-butylbenzaldehyde, and p-tert-butylbenzoic acid were recovered in the org. layer by 75, 97, and 96%, resp. N-hydroxyphthalimide, phthalimide, and phthalic anhydride were extd. into the water phase by 80, 90, and 59%, resp.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1963:468939 CAPLUS
 DOCUMENT NUMBER: 59:68939
 ORIGINAL REFERENCE NO.: 59:12711c-f
 TITLE: Recovery of phthalic acids
 INVENTOR(S): Baldwin, Richard M.; Spiller A., Charles, Jr.
 PATENT ASSIGNEE(S): Standard Oil Co., Indiana
 SOURCE: 7 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3082250		19630319	US	19580505

AB Mixt. of the 3 isomeric phthalic acids obtained by oxidn. of mixed xylenes is sepd. into individual isomers of sufficient purity to permit their use in the prepn. of resins other than fiberforming polymers. Thus, the catalytic liquid phase oxidn. with air of 8000 parts by wt. of a xylene mixt. contg. o-xylene 23.6, m-xylene 45.4, p-xylene 18, and PhMe plus PhEt 13% by wt., in 12,000 parts AcOH and in the presence of Br and a metal oxidizing catalyst gave a reaction mixt. contg. phthalic acid (I), isophthalic acid (II), terephthalic acid (III), BzOH, toluic acid, AcOH, catalyst, and nonorg. by-products. The mixt. was cooled to 140 degrees.F. and mixed phthalic acids (IV) filtered off. The filter cake was washed with 100 degrees.F. AcOH and dried. IV contained I 15, II 55, and III 30% by wt. Wet AcOH was distd. from the combined wash and mother liquors to give a residue contg. aromatic acids, catalyst, and tar. The aromatic portion consisted of BzOH 34.6, toluic acid 2.4, I 52.5, II 8, and III 2.5% by wt. Further distn. at 400 mm. caused dehydration of I to phthalic anhydride (V), and permitted its sepn. from H2O, BzOH, and toluic acid. Slurrying IV with 1.5 parts H2O at 200-10 degrees.F. and cooling to 120-30 degrees.F. caused crystn. of 75-80% of I, recovered by filtration. The remaining I was recovered by concg. the mother liquors or by distg. the H2O, dehydrating I, and recovering V by distn. Alternately, IV was heated to 200-10 degrees. to dehydrate I and the resulting mixt. extd. with C6H6, which dissolved V, to give II and III. The mixt. of II and III was sepd. using selective solvents such as AcOH, 70% H2SO4, or NaOH. Alternately, the Ba salts were prepd. from BaCO3 and sepd. by filtration of H2O-insol. Ba terephthalate. A continuous process incorporating the recovery process is described.

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 19631448127 CAPLUS
DOCUMENT NUMBER: 59:48127
ORIGINAL REFERENCE NO.: 59:8659d-e
TITLE: Separation of benzene polycarboxylic acids
PATENT ASSIGNEE(S): Standard Oil Co. (Indiana)
SOURCE: 9 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 907661		19621010	GB	

PRIORITY APPLN. INFO.: US 19571119

AB Benzene polycarboxylic acids capable of forming intramol. anhydrides may be sepd. via these anhydrides from acids which cannot form such anhydrides. The anhydrides are extd. by aromatic solvents and recovered therefrom. A synthetic mixt. of 34 parts o-phthalic, 2 isophthalic, and 2 terephthalic acids (corresponding to the mixt. obtained by oxidn. of C8 aromatics, at 136-45.degree., with air at 200.degree. and 28 atm. in 110Ac with MnBr2 catalyst) was extd. with 0.25 PhMe at 25.degree.. The residue was heated with 2.6 parts xylene at 178-85.degree. (3.6 parts H2O removed), cooled to 20.degree. and the solid removed, pulverized, extd. with 260 PhMe at 85.degree., the slurry cooled to 60.degree., and the solid filtered off, washed with 17.5 PhMe, and dried to give 3.95 mixt. of iso- and terephthalic acids. Evapn. of the filtrate gave 94.6% phthalic anhydride (97.0% purity). Similarly, 5.279 parts trimesic and 10.088 trimellitic acids gave >99% trimesic acid, and .apprx.100% trimellitic anhydride.

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(FILE 'HOME' ENTERED AT 12:14:49 ON 13 MAR 2003)

FILE 'CAPLUS' ENTERED AT 12:14:57 ON 13 MAR 2003

L1	93 S	IMIDE CATALYST
L2	30 S	L1 AND OXIDATION
L3	6 S	L2 AND SOLVENT
L4	1 S	L3 AND CRYSTALLIZATION
L5	11 S	IMIDE SEPARATION
L6	4 S	L5 AND OXIDATION

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L2 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2003:14353 CAPLUS
 DOCUMENT NUMBER: 137:73579
 TITLE: Oxidation using imide catalysts and metal catalysts and apparatus for the process
 INVENTOR(S): Watanabe, Hitoshi; Hirai, Shigehisa; Miura, Hiroyuki
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKKOAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003002862	A2	20030108	JP 2001-189840	20010622
PRIORITY APPLN. INFO.:			JP 2001-189840	20010622

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AB In oxidn. of substrates by O in the presence of catalysts having imide groups I (X = O, OH, acyloxy) and metal catalysts, the metal catalysts and substrates are introduced to the reaction mixts. sep. from the imide catalysts. App. used for the process is equipped with multiple plates inside of the app., an imide catalyst-supplying outlet, a substrate-supplying outlet, a stirring means, an O source-supplying outlet, and a product-discharging outlet. Thus, AcOH soln. of N-acetoxypthalimide, O, and a mixt. of p-xylene, Co acetate, Mn acetate, and AcOH were sep. introduced to a reactor, reacted at 150.degree. and 4 MPa, discharged, and filtered to give terephthalic acid with 80.0% light transmittance at 340 nm, vs. 74.0%, when all the catalysts and materials were combined and introduced to the reactor. During the process, the intermediate-contg. filtrate was mixed with the imide catalyst and returned to the reaction mixt.

L2 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:802407 CAPLUS
 DOCUMENT NUMBER: 137:310697
 TITLE: Separation of aromatic or aliphatic carboxylic acids from imide catalysts
 INVENTOR(S): Watanabe, Hitoshi; Kuwana, Akihiro; Shimamura, Masami
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKKOAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002308820	A2	20021023	JP 2001-106386	20010404
PRIORITY APPLN. INFO.:			JP 2001-106386	20010404

OTHER SOURCE(S): MARPAT 137:310697

AB The sepn. process comprises crystn. of reaction products prepd. by using imide catalysts having structure Q (X = O, OH, acyloxy) from solvents, while imides are distributed in the solvent phase. P-xylene was oxidized with O in the presence of N-hydroxyphthalimide, cobalt acetate, and manganese acetate in AcOH at 150.degree. under 4 MPa to give a reaction mixt., which was cooled to 80.degree. under 300 mmHg, resulting in terephthalic acid partition ratio 99.7%.

L2 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:837885 CAPLUS
 DOCUMENT NUMBER: 137:352709
 TITLE: Separation of metal catalysts from imide catalysts used in oxidation of cyclohexanes
 INVENTOR(S): Watanabe, Hitoshi; Shimamura, Masami
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKKOAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002320861	A2	20021105	JP 2001-132078	20010427
PRIORITY APPLN. INFO.:			JP 2001-132078	20010427

OTHER SOURCE(S): MARPAT 137:352709

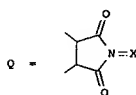
AB Mixts. contg. imides having a structure of Q (X = O, OH, acyloxy) and metal catalysts are divided by extg. the imides into nonaq. solvents and metal catalysts into aq. solvents. Cyclohexane was reacted in the presence of N-hydroxyphthalimide (I) and cobalt(II) acetylacetonate (II) in benzonitrile under O at 100.degree. for 6 h to give a compn. contg. cyclohexanone, I, and II, which was mixed with cyclohexane and water, resulting in extn. ratio of I 79% and that of II 95%.

L2 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:802403 CAPLUS
 DOCUMENT NUMBER: 137:294770
 TITLE: Preparation of aromatic carboxylic acids and/or their anhydrides
 INVENTOR(S): Hirai, Shigehisa; Terada, Masahiko
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKKOAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002308805	A2	20021023	JP 2001-112993	20010411
PRIORITY APPLN. INFO.:			JP 2001-112993	20010411

OTHER SOURCE(S): MARPAT 137:294770

GI

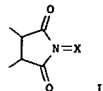


AB The compds. are prepd. by oxidn. of arom. compds. having alkyl or its oxidized group on arom. ring with O in the presence of imide catalysts having structure of Q (X = O, OR; R = H, OH-protecting group) and acid anhydrides. Durene was oxidized in the presence of N-acetoxypthalimide, cobalt acetate, manganese acetate, and Ac2O in AcOH at 150.degree. for 4 h to give 74% a mixt. of pyromellitic acid, pyromellitic dianhydrides, and pyromellitic monoanhydride.

L2 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:707208 CAPLUS
 DOCUMENT NUMBER: 137:232785
 TITLE: Preparation of organic compounds using imide catalysts
 INVENTOR(S): Kitayama, Kenji; Sugawara, Michihiro
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002265406	A2	20020918	JP 2001-67962	20010312
PRIORITY APPLN. INFO.: JP 2001-67962 20010312				
OTHER SOURCE(S): MARPAT 137:232785				

GI



AB Radical-forming nonarom. C:C bond-contg. org. compds. are oxidized by O in the presence of cyclic imide catalysts having structures I (X = O, OR; R = H, protective group) and olefins. Valencene was oxidized by O in MeCN in the presence of N-hydroxyphthalimide, Co(III) acetylacetonate, Co(II) acetate, and limonene at 40.degree. for 2 h to give 67% nootkatone.

L2 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:693128 CAPLUS
 DOCUMENT NUMBER: 137:203029
 TITLE: Catalyst comprising a cyclic imide compound and process for producing organic compounds using the catalyst
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya; Nagano, Shinya; Okuyama, Naoto
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 38 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1238704	A2	20020911	EP 2002-5432	20020308
R: AF, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002331242	A2	20021119	JP 2002-55199	20020301
US 2002128149	A1	20020912	US 2002-92554	20020308
PRIORITY APPLN. INFO.: JP 2001-67633 A 20010309				
OTHER SOURCE(S): MARPAT 137:203029				

GI

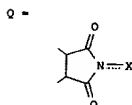


AB A catalyst includes a cyclic imide compd. having an N-substituted cyclic imide skeleton I, wherein X is an oxygen atom or a hydroxyl group, and having a soly. parameter of less than or equal to 26 [(MPa)1/2] as detd. by Fedors method. The catalyst may further-comprise a metallic compd. By allowing (A) a compd. capable of forming a radical to react with (B) a radical scavenging compd. in the presence of the catalyst, an addn. or substitution reaction product between the compd. (A) and the compd. (B) or a deriv. thereof can be obtained. 4-Dodecyloxy carbonyl-N-hydroxyphthalimide was prepd. and used to catalyze the reaction between cyclohexane and nitrogen dioxide to give a mixt. of nitrocyclohexane and cyclohexyl nitrate.

L2 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:606356 CAPLUS
 DOCUMENT NUMBER: 137:154704
 TITLE: Preparation of cyclohexanones by using imide catalysts
 INVENTOR(S): Nakai, Toru; Ishii, Yasutaka
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 200226423	A2	20020814	JP 2001-25655	20010201
PRIORITY APPLN. INFO.: JP 2001-25655 20010201				
OTHER SOURCE(S): CASREACT 137:154704; MARPAT 137:154704				

GI



AB Ketones are prepd. by reaction of secondary alcs. with O in the presence of imide catalysts having skeletons Q (X = O, OR; R = H, OH-protecting group) and arom. carboxylic acids, their salts, and/or arom. aldehydes as reaction promoters. 1,4-Cyclohexanediol was oxidized in the presence of N-hydroxyphthalimide, cobalt acetate, and benzoic acid in acetonitrile at 65.degree. for 20 h to give 66% 1,4-cyclohexanedione and 15% cyclohexan-1-ol-4-one.

L2 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:606355 CAPLUS
 DOCUMENT NUMBER: 137:155074
 TITLE: Preparation of longihomocamphenilones using imide catalysts
 INVENTOR(S): Kitayama, Kenji
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 200226422	A2	20020814	JP 2001-25661	20010201
PRIORITY APPLN. INFO.: JP 2001-25661 20010201				
OTHER SOURCE(S): CASREACT 137:155074; MARPAT 137:155074				

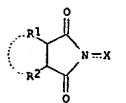
AB Carbonyl compds. are prepd. by oxidn. of olefins with O in the presence of imide catalysts having skeletons Q (X = O, OR; R = H, OH-protecting group) and V compds. as catalyst promoters. Longifolene was oxidized in the presence of N-hydroxyphthalimide and bis(acetylacetonato)oxovanadium in AcOH under 0.1 MPa O at 85.degree. for 4 h to give 45% longihomocamphenilone.

L2 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:606354 CAPLUS
 DOCUMENT NUMBER: 137:154757
 TITLE: Preparation of phthalaldehydes by using imides and nitric acid
 INVENTOR(S): Ishii, Yasutaka; Tatsumi, Atsuo
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKOKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002226421	A2	20020814	JP 2001-25375	20010201
PRIORITY APPLN. INFO.: JP 2001-25375 20010201				
OTHER SOURCE(S): CASREACT 137:154757; MARPAT 137:154757				
AB Oxidized org. compds. are prep'd. by oxidn. of a org. compds. in the presence of imides having skeletons Q (X = O, OR; R = H, OH-protecting group) and nitric acid oxidizing agents. Phthalan was oxidized in the presence of N-hydroxyphthalimide and HNO ₃ in AcOH at 60.degree. for 30 min to give 70% o-phthalaldehyde and 11% phthalide.				

L2 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:423885 CAPLUS
 DOCUMENT NUMBER: 137:6082
 TITLE: Method for preparation of nitrogen monooxide from nitrogen dioxide, and method for preparation of organic compound using nitrogen monooxide generated
 INVENTOR(S): Tatsuami, Atsuro
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKOKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

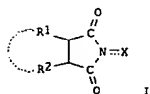
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002160910	A2	20020604	JP 2000-356206	20001122
PRIORITY APPLN. INFO.: JP 2000-356206 20001122				
OTHER SOURCE(S): CASREACT 137:6082; MARPAT 137:6082				
GI				



AB Nitrogen monooxide is readily generated by contacting nitrogen dioxide with cyclic imide catalysts [I; R₁, R₂ = H, halo, alkyl, aryl, cycloalkyl, HO, alkoxyl, CO₂H, alkoxy-carbonyl, acyl; or R₁ and R₂ are linked to each other to form a double bond or an aro. or aliph. ring; X = O, (un)protected OH; provided that another one or two N-substituted cyclic imide is formed on R₁, R₂, or a double bond or aro. or aliph. ring formed when R₁ and R₂ are linked to each other] and used as a reagent for prep'n. of org. compds. Nitrogen monooxide generated is used for oxidn. or reaction introducing N such as nitration or oxidation. Thus, 0.15 mmol NO₂(1) was added to 0.58 g N-hydroxyphthalimide and 30 g AcOH in a 100-ml flask fitted with a condenser and the resulting mixt. was frozen in a dry ice-methanol bath, followed by degassing the gas phase and replacing it with N. The above mixt. was heated at 70.degree., upon which NO was detected at 40 ppm at the upper part of the condenser. After heating the mixt. at 70.degree. for 4 h, the NO concn. was 60 ppm in the gas compn. at the upper part of the condenser. Phthalan 1.0, AcOH 9, and N-hydroxyphthalimide 0.14 g were added to a 50-ml flask, followed by adding 1.01 g NO₂(1), and the resulting mixt. was heated at 70.degree. under N atm. for 20 min to give 65.4% phthalaldehyde and 10% phthalide.

L2 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:353394 CAPLUS
 DOCUMENT NUMBER: 136:369265
 TITLE: Method for separation of reaction products from catalysts
 INVENTOR(S): Sugawara, Michihiro
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036527	A1	20020510	WO 2001-JP9407	20011025
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002145807	A2	20020522	JP 2000-335177	20001101
PRIORITY APPLN. INFO.: JP 2000-335177 A 20001101				
OTHER SOURCE(S): MARPAT 136:369265				
GI				



AB This document discloses a method for sepg. a reaction product and an imide catalyst of the general formula I [wherein R₁ and R₂ are each hydrogen, alkyl, or the like, or alternatively R₁ and R₂ may be united to form a double bond, or an aro. or non-arom. ring; and X is oxygen or hydroxyl] or a degenerate thereof from a reaction mixt. obtained by a reaction using the imide catalyst, which comprises extg. the reaction mixt. with two org. solvents which are separable from each other to thereby distribute the reaction product and the catalyst or the degenerate to the two org. solvent layers resp. According to this method, an imide catalyst such as N-hydroxyphthalimide and/or a degenerate thereof and a reaction product can be efficiently sepd. by easy operation from a reaction mixt. obtained by using the imide catalyst and a substrate such as hydrocarbon or the like.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:347364 CAPLUS
 DOCUMENT NUMBER: 136:341145
 TITLE: Manufacture of high-purity carboxylic acids
 INVENTOR(S): Watanabe, Hitoshi; Miura, Hiroyuki
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKOKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002128726	A2	20020509	JP 2001-116065	20010413
PRIORITY APPLN. INFO.: JP 2000-248651 A 20000818				
OTHER SOURCE(S): MARPAT 136:341145				
AB Carboxylic acids are manuf'd. by treating cycloalkanes or Me-contg. arom. hydrocarbons with O in the presence of imide catalysts and sepg. carboxylic acids, the catalysts, and byproducts. Thus, cyclohexane was oxidized by air in the presence of MeCHO, N-hydroxyphthalimide, Co acetylacetonate, Co acetate, and AcOH under 5 MPa at 110.degree., crystd. from the reaction mixt., and recrystd. from H ₂ O to give adipic acid with 99.77% purity. The catalyst was sepd. from byproducts and recycled.				

L2 ANSWER 13 OF 30 CAPIUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:347359 CAPIUS
 DOCUMENT NUMBER: 136:325261
 TITLE: Oxidation of cyclohexane
 INVENTOR(S): Murata, Shuzo; Tani, Nobuhiro
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan; Daicel Chemical Industries, Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JXKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002128714	A2	20020509	JP 2000-316242	20001017
PRIORITY APPL. INFO.: JP 2000-316242 20001017				

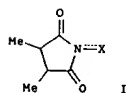
OTHER SOURCE(S): CASREACT 136:325261
 AB Cyclohexanone, cyclohexanol, and/or cyclohexyl hydroperoxide are prepd. by catalytic reaction of 100 wt. parts cyclohexane with mol. O in the presence of N-hydroxy cyclic imides and transition metal compds. in 10-80 wt. parts solvents having relative permittivity .gtoreq.7 at 25.degree.. Cyclohexane was oxidized with O in the presence of N-hydroxyphthalimide and cobalt octylate in MeCN at 100.degree. and retention time 1 h under 1.05 MPa for 5 h to give cyclohexanone 50.5, cyclohexanol 8.4, and cyclohexyl hydroperoxide 17.1%.

L2 ANSWER 14 OF 30 CAPIUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:303980 CAPIUS
 DOCUMENT NUMBER: 137:232416
 TITLE: A new selective free radical synthesis of aromatic aldehydes by aerobic oxidation of tertiary benzylamines catalyzed by N-hydroxyimides and Co(II) under mild conditions. Polar and enthalpic effects
 AUTHOR(S): Cecchetto, Andrea; Minisci, Francesco; Recupero, Francesco; Fontana, Francesca; Franco Pedulli, Gian
 CORPORATE SOURCE: Dipartimento di Chimica Materiali e Ingegneria Chimica 'G.Natta', Politecnico di Milano, Milan, 20131, Italy
 SOURCE: Tetrahedron Letters (2002), 43(19), 3605-3607
 CODEN: TETLEA; ISSN: 0040-4039
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 137:232416
 AB Tertiary benzylamines are easily and selectively converted into aldehydes by mol. oxygen; the reaction is catalyzed by N-hydroxy imides and Co(II).
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 15 OF 30 CAPIUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:129120 CAPIUS
 DOCUMENT NUMBER: 136:183711
 TITLE: Preparation of high-purity pyridinecarboxylic acids
 INVENTOR(S): Watanabe, Hitoshi; Hirai, Shigehisa; Terada, Masahiko
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JXKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002053556	A2	20020219	JP 2000-245552	20000814
PRIORITY APPL. INFO.: JP 2000-245552 20000814				

OTHER SOURCE(S): MARPAT 136:183711
 GI



AB Pyridinecarboxylic acids are prepd. by treatment of alkylpyridines with O in the presence of oxidn. catalysts having imide units I (X = O, OH) and sepn. of the resulting pyridinecarboxylic acids from the oxidn. catalysts and byproducts. A mixt. contg. .beta.-picoline (II) 92, .alpha.-picoline 4, and .gamma.-picoline 4 wt.% was oxidized with air in AcOH in the presence of nicotinaldehyde, N-hydroxyphthalimide, Co acetate, and Mn acetate at 100.degree. under 2 MPa for 5 h to give nicotinic acid (III) in 48% yield, 60% conversion of II, and 80% selectivity for III. The reaction mixt. was cooled for crystn. and filtered to give III of 99.2% purity.

L2 ANSWER 16 OF 30 CAPIUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:21661 CAPIUS
 DOCUMENT NUMBER: 136:70250
 TITLE: One-pot synthesis of lactams from cycloalkanes and nitrogen oxide
 INVENTOR(S): Shimamura, Masami; Watanabe, Hitoshi
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JXKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 200203470	A2	20020109	JP 2000-190224	20000623
PRIORITY APPL. INFO.: JP 2000-190224 20000623				

OTHER SOURCE(S): MARPAT 136:70250

AB Lactams are prepd. by contacting cycloalkanes with N oxide in the presence of N-substituted cyclic imide catalysts and halogen or Beckmann rearrangement catalysts, followed by recovering lactams from the reaction mixts. by crystn., distn., and/or extn. Thus, cyclohexane was reacted with NO in the presence of N-hydroxyphthalimide and Cl at 100.degree. for 10 h in AcOH to give 1% .epsilon.-caprolactam with 99.2% purity.

L2 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2001:326252 CAPLUS
 DOCUMENT NUMBER: 134:310982
 TITLE: Preparation of benzaldehydes and/or benzoic acids
 INVENTOR(S): Watanabe, Hitoshi; Hirai, Shigehisa; Shimamura, Mami;
 Miura, Hiroyuki
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

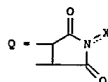
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001122808	A2	20010508	JP 2000-240217	20000808
PRIORITY APPLN. INFO.:			JP 1999-229562	A 19990816

OTHER SOURCE(S): MARPAT 134:310982
 AB Title compds. are prepd. by oxido. of toluenes with mol. O in the presence of N-substituted cyclic imide catalysts, extg. with addn. of H₂O, neutralizing org. phase with alkali aq. solns., recovering benzaldehyde from the org. phase, acidifying water phase, and recovery of benzoic acids. P-tert-butyltoluene was oxidized with O in the presence of N-hydroxyphthalimide and cobalt(II) acetate in AcOH at 90.degree. for 4 h to give 56.2% p-tert-butylbenzoic acid and 7.0% p-tert-butylbenzaldehyde, which were purified by extrn.

L2 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2001:192011 CAPLUS
 DOCUMENT NUMBER: 134:237300
 TITLE: Oxidation of ethers and preparation of acetals or carbonyl compounds
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001072627	A2	20010321	JP 1999-254977	19990908
PRIORITY APPLN. INFO.:			JP 1999-254977	19990908

OTHER SOURCE(S): CASREACT 134:237300; MARPAT 134:237300
 GI



AB Ethers are oxidized by .gtoreq.5 mol/mol-ether NO in the presence of imide catalysts I (R1QnR2; R1, R2 = H, halo, (cyclo)alkyl, aryl, OH, alkoxy, CO₂H, alkoxycarbonyl, acyl; R1R2 may form ring; X = O, OH; n = 1-3). Phthalan (10 mmol) was oxidized by 60 mmol NO in MeCN in the presence of N-hydroxyphthalimide at 60.degree. for 8 h to give 88% phthalaldehyde.

L2 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2001:101629 CAPLUS
 DOCUMENT NUMBER: 134:295874
 TITLE: Kinetics and Mechanism of Phosphine Autoxidation
 Catalyzed by Iridorhenium(V) Complexes
 AUTHOR(S): Wang, Wei-Dong; Espenson, James H.
 CORPORATE SOURCE: Ames Laboratory and Department of Chemistry, Iowa State University of Science and Technology, Ames, IA, 50011, USA
 SOURCE: Inorganic Chemistry (2001), 40 (6), 1323-1328
 CODEN: INOCAJ; ISSN: 0020-1669
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

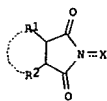
AB The relative binding abilities of PY3 (PMe3, PMe2Ph, PMePh2, PPh3, P(OMe)3, P(OMe)2Ph, PET3, P(OEt)3, P(OEt)Ph2, and dmpe) toward ReV were evaluated. The equil. consts. for the reactions, MeRe(NAr)2(P(OMe)3)2 + PY3 = MeRe(NAr)2(PY3)2 (1) + P(OMe)3, decrease in the order PMe3 > dmpe > PMe2Ph > P(OMe)2Ph approx. PET3 > P(OEt)3 > PMePh2 > P(OEt)Ph2 > PPh3. Both electronic and steric factors contribute to this trend. The equil. const. increases as the basicity of PY3 increases when the steric demand is the same. However, steric effects play a major role in the coordination, and this is the reason that the affinity of PET3 toward ReV is less than that of PMe2Ph. A mixed-ligand complex, MeRe(NAr)2(P(OMe)3)(PY3), was also obsd. in the stepwise formation of 1. The large coupling const., 2JPP .gtoreq. 491 Hz, between the two P atoms suggests a trans geometry for the phosphines. Compd. 1 catalyzes the oxidn. of PY3 by O2. Kinetic studies suggest that the reaction of 1 with O2 is 1st-order with respect to [O2] and inverse-first-order with respect to [PY3]. A mechanism involving a peroxorhenium intermediate MeRe(NAr)2(.eta.2-O2) is proposed for the catalytic processes. The reactivity of MeRe(NAr)2(.eta.2-O2) toward triarylphosphines parallels that of the known compd. MeReO2(.eta.2-O2).

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2000:733117 CAPLUS
 DOCUMENT NUMBER: 133:310620
 TITLE: Surface modification method and plastic molded products modified thereby
 INVENTOR(S): Funaki, Katsunori; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000290413	A2	20001017	JP 1999-103441	19990412
WO 2000061665	A1	20001019	WO 2000-JP2255	20000407
W: KR, US				
RW: DE, FR, GB				
EP 1120438	A1	20010801	EP 2000-915398	20000407
R: DE, FR, GB				
US 6486265	B1	20021126	US 2001-719395	20010222
PRIORITY APPLN. INFO.:			JP 1999-103441	A 19990412
			JP 1999-103442	A 19990412
			WO 2000-JP2255	W 20000407

OTHER SOURCE(S): MARPAT 133:310620
 GI



AB The plastic molded products, useful for optical lenses, etc., are treated with O-contg. gases in the presence of imides I (R1, R2 = H, OH, halo, alkyl, aryl, cycloalkyl, alkoxy, carbony, alkoxycarbonyl, acyl; X = O, OH) for imparting hydrophilicity on the surfaces without increasing water absorption of the molded products. Thus, a polypropylene (FL 100) sheet treated with O in the presence of N-hydroxyphthalimide and cobalt acetylacetonate showed water contact angle 101.4.degree. and 90.5.degree. before and after the treatment, resp., and water absorption 0.07% before and after the treatment.

L2 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2000:616644 CAPLUS
 DOCUMENT NUMBER: 133:192938
 TITLE: Preparation of cyclohexanones
 INVENTOR(S): Miura, Hiroyuki; Watanabe, Hitoshi; Ina, Tomohide;
 Nakajima, Hidehiko
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000239210	A2	20000905	JP 1999-42105	19990219
PRIORITY APPLN. INFO.:			JP 1999-42105	19990219
OTHER SOURCE(S):			MARPAT 133:192938	

AB Cycloalkanones are prep'd. by reaction of cycloalkanes with mol. O in the presence of oxidn. catalysts, wherein produced cycloalkanols are returned to the reaction system. Cyclohexane was oxidized in the presence of N-hydroxyphthalimide and cobalt acetoacetate at 60.degree. under 40 atm for 2 h to give cyclohexanone and cyclohexanol in 40% and 49% selectivity, resp., with 11% conversion. Cyclohexanol was returned to the reaction system to give 98% cyclohexanone.

L2 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2000:592676 CAPLUS
 DOCUMENT NUMBER: 133:179298
 TITLE: Manufacture of organic oxidation reaction products by the molecular oxygen oxidation and by using imide catalysts
 INVENTOR(S): Miura, Hiroyuki; Watanabe, Hitoshi; Ina, Tomohide;
 Nakajima, Hidehiko
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 28 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000048972	A1	20000824	WO 2000-JP689	20000208
W: CN, ID, IN, KR, SG, US, VN				
R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000239200	A2	20000905	JP 1999-42104	19990219
EP 1074536	A1	20010207	EP 2000-902150	20000208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			JP 1999-42104	A 19990219
			WO 2000-JP689	W 20000208
OTHER SOURCE(S):			MARPAT 133:179298	

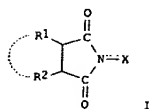
AB The manuf. giving products with good yield and high purity under mild conditions is processed by oxidizing a substrate, e.g., a hydrocarbon, an alc., an aldehyde or a ketone, with mol. O in the presence of an imide compd. (A), e.g., N-hydroxyphthalimide (I), alone as the oxidn. catalyst or its mixt. with a Group 3-11 or Group 13 transition metal compd. as cocatalyst, wherein the moisture content in the system is controlled to <200 mol/mol-A for reducing the byproduct formation and catalyst poisoning. Thus, a mixt. of 840 g cyclohexane (II; moisture content 0.042 g), 160 g I (moisture content 5 g) and 10,000 g acetonitrile (moisture content 45 g) having I:H₂O mol. ratio of 1:2.8 was heated at 75.degree. under an O pressure of 20 atm for 10 h to give cyclohexanone with purity 99% and II conversion rate of 56%.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2000:542306 CAPLUS
 DOCUMENT NUMBER: 133:135025
 TITLE: Preparation of carboxylic acids
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000219652	A2	20000808	JP 1999-21736	19990129
PRIORITY APPLN. INFO.:			JP 1999-21736	19990129
OTHER SOURCE(S):			CASREACT 133:135025; MARPAT 133:135025	

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AB Title compds. are prep'd. by reaction of 1,2-diols with O in the presence of imides I (R1, R2 = H, halo, alkyl, aryl, cycloalkyl; X = O, OH). 1,2-Octanediol was reacted in the presence of N-hydroxyphthalimide and cobalt(III) acetylacetonate in acetonitrile at 70.degree. for 13 h to give 71% heptanoic acid.

L2 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:802796 CAPLUS
 DOCUMENT NUMBER: 132:51439
 TITLE: Method for oxidation of organic compounds using organic imide catalysts
 INVENTOR(S): Hirai, Shigehisa
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11349493	A2	19991221	JP 1998-170590	19980602
PRIORITY APPLN. INFO.:			JP 1998-170590	19980602
OTHER SOURCE(S):			MARPAT 132:51439	

AB The oxidn. is done with mol. O by using org. imide catalysts and a metal compd. at 10-85.degree. in an org. solvent where the metal compd. is used at 0-0.28 mol% based on the substrate. Oxidizable substrates are (a) compds. bearing C-H bond on position adjacent to a double bond, (b) methine carbon-contg. compds., (c) nonarom. cyclic hydrocarbon, (d) nonarom. alicyclic compds. bearing C-H bond on position adjacent to hetero atom, (e) conjugated compds., (f) alcs. or thiois., (g) ethers or thio ethers, (h) aldehydes or thio aldehydes, (i) amines and (j) arom. compds. Thus, heating cyclohexane 50 with N-hydroxyphthalimide (I) 9.69, Co(II) acetate tetrahydrate 0.296, and CH₃CN 400 g under a N pressure of 33 kg/cm² while mixing to 75.degree., displacing N with N and air under a pressure of 40 kg/cm² and N hour space ratio 40, after treating for 4 h, displacing with N and cooling gave a mixt. contg. cyclohexanone (yield 14.1, selectivity 74.5%), cyclohexanol (yield 1.1%, selectivity 6%) and adipic acid (yield 1.85, selectivity 9.4%) and remained I 93.7%.

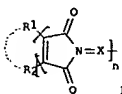
L2 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:789705 CAPLUS
 DOCUMENT NUMBER: 132:12170
 TITLE: Preparation of adamantanes
 INVENTOR(S): Chikamori, Masahiro
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11343254	A2	19991214	JP 1998-166180	19980529
PRIORITY APPLN. INFO.: JP 1998-166180 19980529				
OTHER SOURCE(S): MARPAT 132:12170				

AB Polycyclic polyhydric alcs. are prep'd. by oxidn. of polycyclic hydrocarbons which can sublime with O at relatively high temp. and then oxidn. at relatively low temp. Adamantane was oxidized in the presence of N-hydroxyphthalimide and vanadium(III) acetylacetonate in AcOH at 80.degree. for 2 h and at 60.degree. for 4 h to give 29.0% 1,3-adamantanediol.

L2 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:728061 CAPLUS
 DOCUMENT NUMBER: 131:336738
 TITLE: Preparation of acetals or carbonyl compounds by oxidation of ethers
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan; Ishii, Yasutaka
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

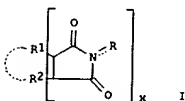
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11315036	A2	19991116	JP 1998-99996	19980326
PRIORITY APPLN. INFO.: JP 1998-69459 19980304				
OTHER SOURCE(S): CASREACT 131:336738; MARPAT 131:336738				



AB Ethers are catalytically oxidized with O in the presence of imide I [R1, R2 = H, halo alkyl, aryl, cycloalkyl, OH, alkoxy, etc.; R1R2 may form double bond or (non)arom. ring; X = O, OH; n = 1-3] catalysts. (RbOCRa1Ra2)2O (Ra1, Ra2 = H, hydrocarbyl, heterocyclyl; Rb = hydrocarbyl, heterocyclyl; Ra1Ra2, Ra1Rb, or Ra2Rb may form ring) or Ra1CRa2O (Ra1, Ra2 = same as above) are prep'd. from Ra1CHRa2ORb (Ra1, Ra2, Rb = same as above). Isochroman was oxidized in the presence of N-hydroxyphthalimide in acetonitrile under O at 60.degree. for 7 h to give 1,1'-oxydiisochroman, which was reacted with EtOH at room temp. for 30 min to give 68% 1-ethoxyisochroman.

L2 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:530958 CAPLUS
 DOCUMENT NUMBER: 131:170170
 TITLE: Preparation of quinones by oxidation of aromatic hydrocarbons in presence of imides
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

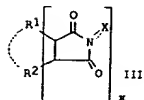
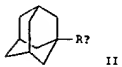
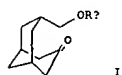
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11228484	A2	19990824	JP 1998-54446	19980218
PRIORITY APPLN. INFO.: JP 1998-54446 19980218				
OTHER SOURCE(S): CASREACT 131:170170; MARPAT 131:170170				



AB Quinones are prep'd. by oxidn. of arom. hydrocarbons with O2 in the coexistence of imides I [R1, R2 = H, halo, alkyl, aryl, cycloalkyl, OH, alkoxy, carbonyl, alkoxy carbonyl, acyl; R1R2 may form a double bond or (non)arom. ring; R = O, OH; n = 1-3] and compds. which can be oxidized by the imides and O2. Oxidn. of anthracene and fluorene in AcOH in the presence of N-hydroxyphthalimide and Co(II) acetylacetonate under O2 at 80.degree. for 20 h gave 12% 9,10-anthraquinone with 16% conversion and 31% fluorenone with 45% conversion.

L2 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:530956 CAPLUS
 DOCUMENT NUMBER: 131:170114
 TITLE: Preparation of bicyclo[3.3.1]nonanes
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11228481	A2	19990824	JP 1998-54447	19980218
PRIORITY APPLN. INFO.: JP 1998-54447 19980218				
OTHER SOURCE(S): CASREACT 131:170114; MARPAT 131:170114				

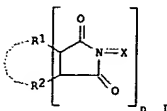


AB Title compds. I (Ra = H, acyl; C in ring may have substituent) are prep'd. by reaction of adamantanes II (Rb = H, OH, acyloxy; C in ring may have substituent) with RaOH (Ra = same as I) and mol. O in the presence of imides III (R1, R2 = H, halo, alkyl, aryl, cycloalkyl, OH, alkoxy, carbonyl, alkoxy carbonyl, acyl; R2R2 = double bond, arom. or nonarom. ring; X = O, OH; n = 1-3) and strong acids. Adamantane was oxidized with AcOH in the presence of N-hydroxyphthalimide and MeSO3H under oxygen at 100.degree. for 6 h to give 12% 3-acetoxymethyl-7-oxobicyclo[3.3.1]nonane.

L2 ANSWER 29 OF 30 CAPIUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:768039 CAPIUS
 DOCUMENT NUMBER: 130:3628
 TITLE: Preparation of adamantanol and adamantanones by oxidation of adamantanes
 INVENTOR(S): Nakano, Tatsuya; Ishii, Yasutaka; Hirai, Shigetaka
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JIOKAP
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316601	A2	19981202	JP 1997-129472	19970520
PRIORITY APPLN. INFO.: JP 1997-129472 19970520				
OTHER SOURCE(S): CASREACT 130:3628; MARPAT 130:3628				

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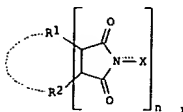


AB Hydroxy group or oxo group-contg. polycyclic compds. are prepd. by oxidn. of sublimate polycyclic hydrocarbons having methylidyne at bridgehead or fused position with O in the presence of the catalysts contg. imino compds. I (R1, R2 = H, halo, alkyl, aryl, cycloalkyl, OH, etc.; X = O, OH; n = 1-3) in arom. compd. not sublimating and acidic compd. and/or nonarom. nitrile solvents. Adamantane was oxidized in the presence of N-hydroxyphthalimide and V2O5 in PhCl/AcOH (50:50 wt. ratio) under O at 85.degree. for 3 h to give 1-adamantanol 46.4, 1,3-adamantanediol 20, 2-adamantanone 8, and 1,3,5-adamantanetriol 1.4%.

L2 ANSWER 30 OF 30 CAPIUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:760025 CAPIUS
 DOCUMENT NUMBER: 129:331158
 TITLE: Process and imide catalysts for the oxidation of nonaromatic ethers to esters or anhydrides
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPOXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 878458	A1	19981118	EP 1998-108533	19980511
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10316610	A2	19981202	JP 1997-122526	19970513
US 6037477	A	20000314	US 1998-74604	19980508
PRIORITY APPLN. INFO.: JP 1997-122526 19970513				
OTHER SOURCE(S): MARPAT 129:331158				

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AB Linear or cyclic nonarom. ethers (e.g., phthalide) are oxidized with oxygen in the presence of an imide oxidn. catalyst [I: R1, R2 = H, halogen, alkyl, aryl, cycloalkyl, OH, alkoxy-carbonyl, acyl; n = 1-3; X = O, OH; R1R2 = double bond or (non)arom. ring moiety] and an optional cocatalyst (e.g., a transition metal compd.) to produce the corresponding chain or cyclic ester or anhydride in high yield and selectivity. Thus, phthalide was oxidized in PhCN in the presence of 2 mol % N-hydroxyphthalimide with O2(g) at 100.degree., producing phthalic anhydride in 46% yield.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT